

DEPARTMENT OF TRANSPORTATION**ENGINEERING SERVICE CENTER**

Transportation Laboratory

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**METHOD FOR TESTING FENCE POSTS AND BRACES**

CAUTION: Prior to handling test materials, performing equipment setups, and/or conducting this method, testers are required to read "**SAFETY AND HEALTH**" in Section E of this method. It is the responsibility of the user of this method to consult and use departmental safety and health practices and determine the applicability of regulatory limitations before any testing is performed.

A. SCOPE

The procedures to be used for determining the bending strength (Minimum Resisting Moment) of fence posts and braces are described in this method. A point load at midspan is applied to a simply supported 1.22 m span of fence post or brace in this method.

B. APPARATUS

1. Any type of calibrated testing machine capable of applying a downward force in excess of the force required to produce the specified minimum Resisting Moment is required.
2. A testing frame and loading head similar to that shown in Figure 1 is required.
3. A dial micrometer is required, reading to 0.01 mm with a spindle movement of 25 mm.

C. TEST PROCEDURE

1. Mount the member in the testing frame for bending about its major axis. Apply a preload of not less than 90 N nor more than 360 N. Regulate the amount of preload so

that the specimen is firm against all bearing points. Then, zero the dial micrometer located at midspan.

2. After preloading, apply an additional load in N corresponding to the minimum Resisting Moment in N.m, as required in Section 80 of the California Standard Specifications. Read and record the midpoint deflection on the dial micrometer. Note any visual distress under load.
3. Unload the member to the preload and record any permanent set.
4. Remove the preload and rotate the member 90°. Repeat steps 1 through 3 for bending about the minor axis.

D. REPORTING RESULTS

Document results of tests with appropriate comments and notations on Form TL-0610. Report results in formal form (as complying or not complying with specifications) on Form TL-6039.

E. SAFETY AND HEALTH

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Prior to handling, testing or disposing of any waste materials, testers are required to read: Part A (Section 5.0), Part B (Sections: 5.0, 6.0 and 10.0) and Part C (Section 1.0) of Caltrans Laboratory Safety Manual. Users of this method do so at their own risk.

REFERENCE:

California Standard Specifications

End of Text (California Test 674 contains 3 pages)

FIGURE 1 - FENCE POST TESTING SYSTEM